

# ITTI 2000

## **An Introduction to NECA**

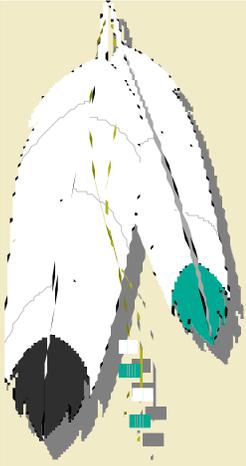
Presented by:

Carol Brennan

Director - Industry Relations

NECA Western Region

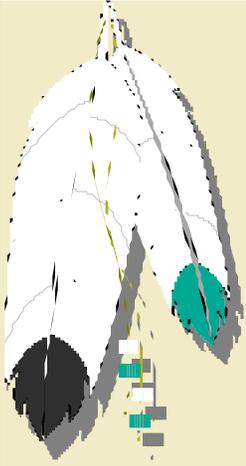
**INDIAN TELECOM TRAINING INITIATIVE 2000**



# ITTI 2000

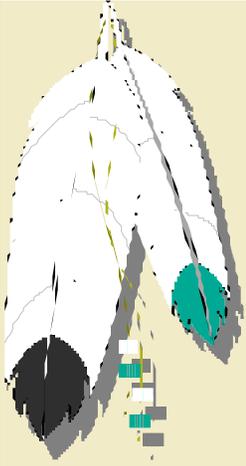
## Agenda

- What is NECA?
- Access Charges
- Forecasting/Rate Development
- Tariff/CABS
- Pooling/Settlements
- Support Programs



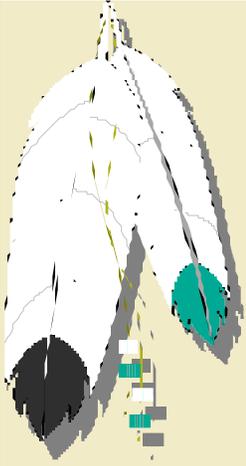
## What is NECA?

- Formed in 1983 by FCC order to administer its Access Charge Plan, its supporting pools and tariffs and support universal service.
- Non-stock, non-profit association



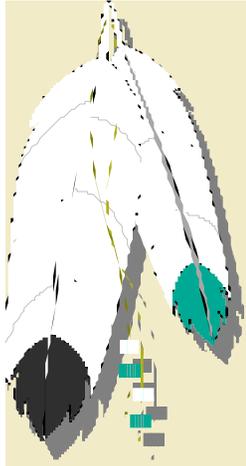
## What is NECA?

- Members are all incumbent telephone companies in the United States and its territories
- Governed by Board of Directors
  - 10 representatives from telephone companies
  - 5 representatives from outside the telephone industry

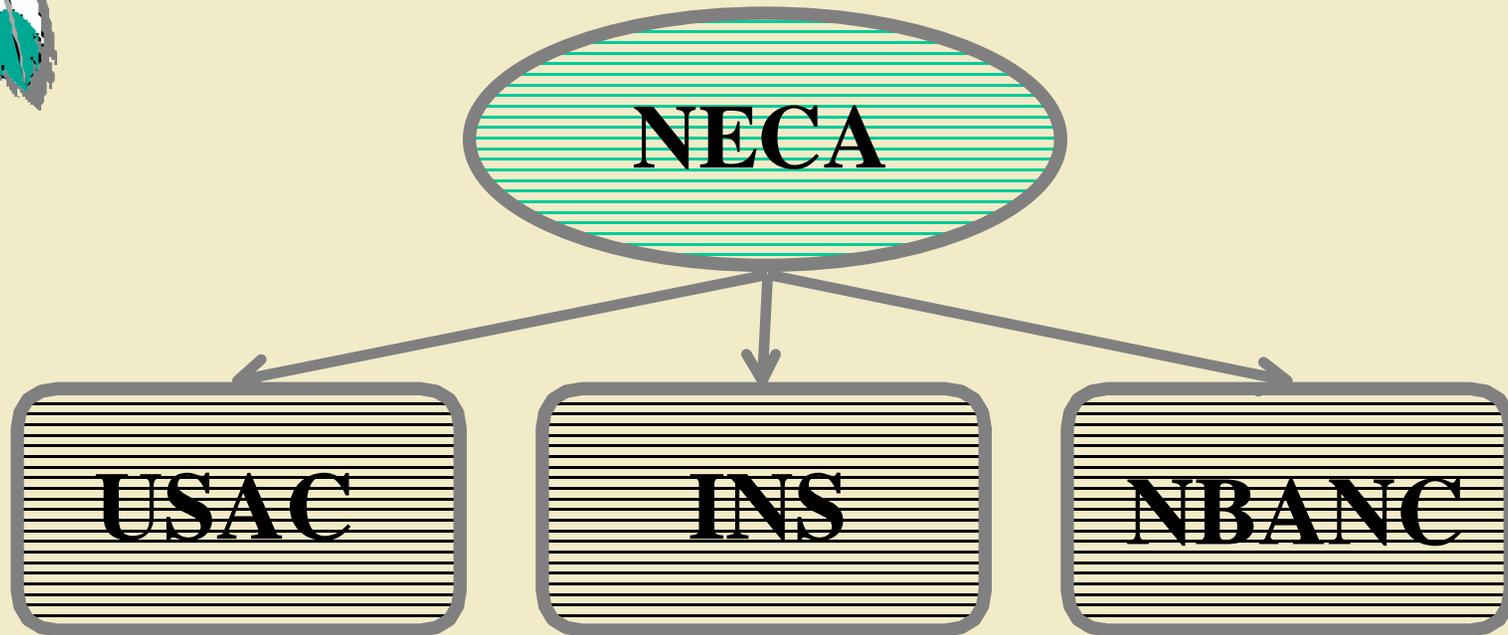


# NECA Membership

- Criteria established by FCC rules 69.601
  - Must either participate in distribution of Carrier Common Line Revenues
- or
- Contribute to Long Term Support
  - Incumbent Local Exchange Carrier member of NECA as of 2/8/96
  - Approval by FCC through Study Area Waiver



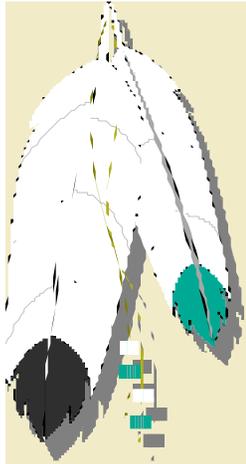
# NECA and it's Subsidiaries



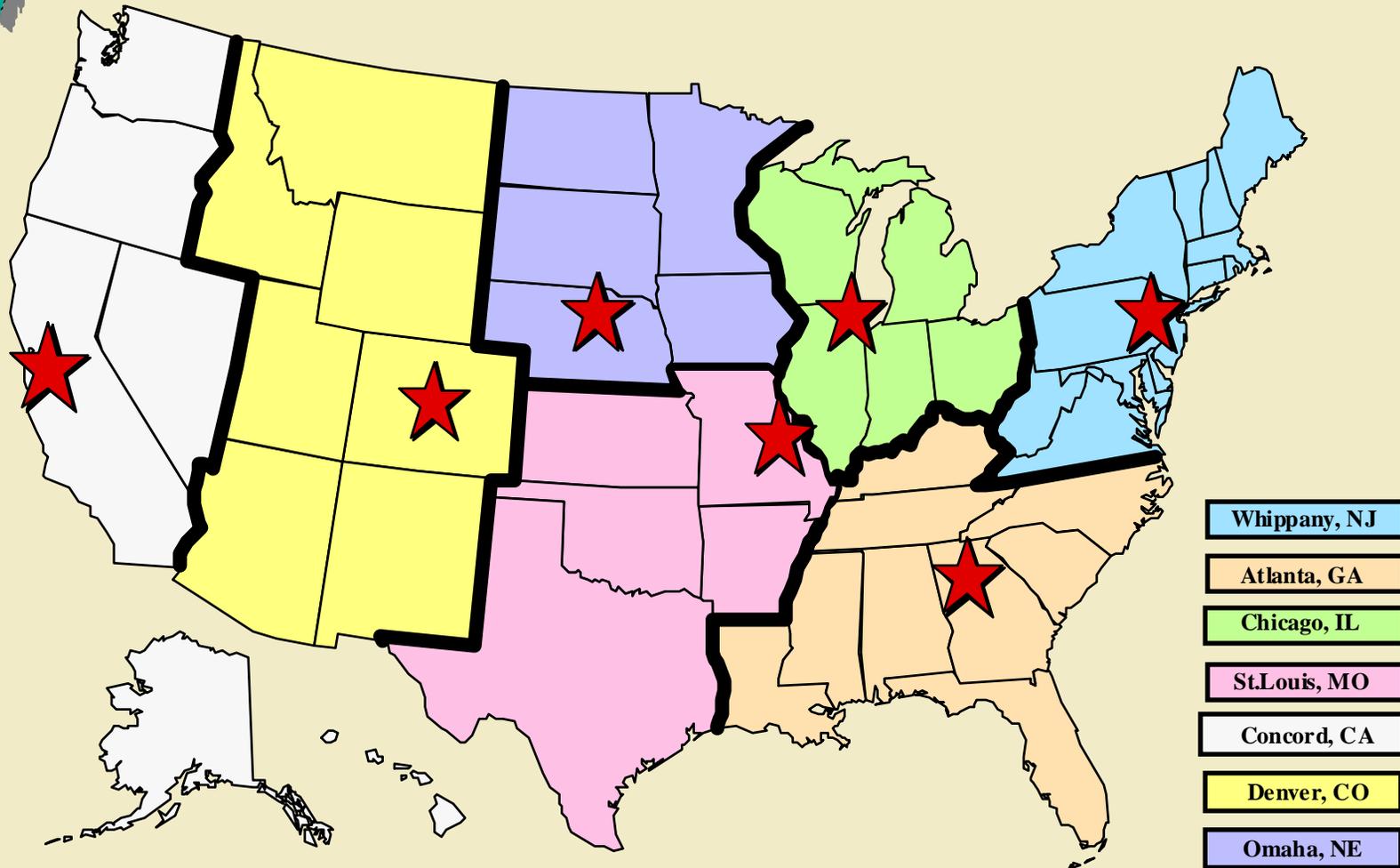
**Universal Service  
Administrative Company**  
High Cost Funds, Low  
Income Programs, Schools  
and Libraries Fund, Rural  
Health Care Fund, billing and  
collection for all funds

**Independent NECA  
Services**  
Administers billing and  
collection programs

**North American Billing  
and Collection**  
Billing and collection agent for  
North American Numbering  
Plan (NANP) administrator

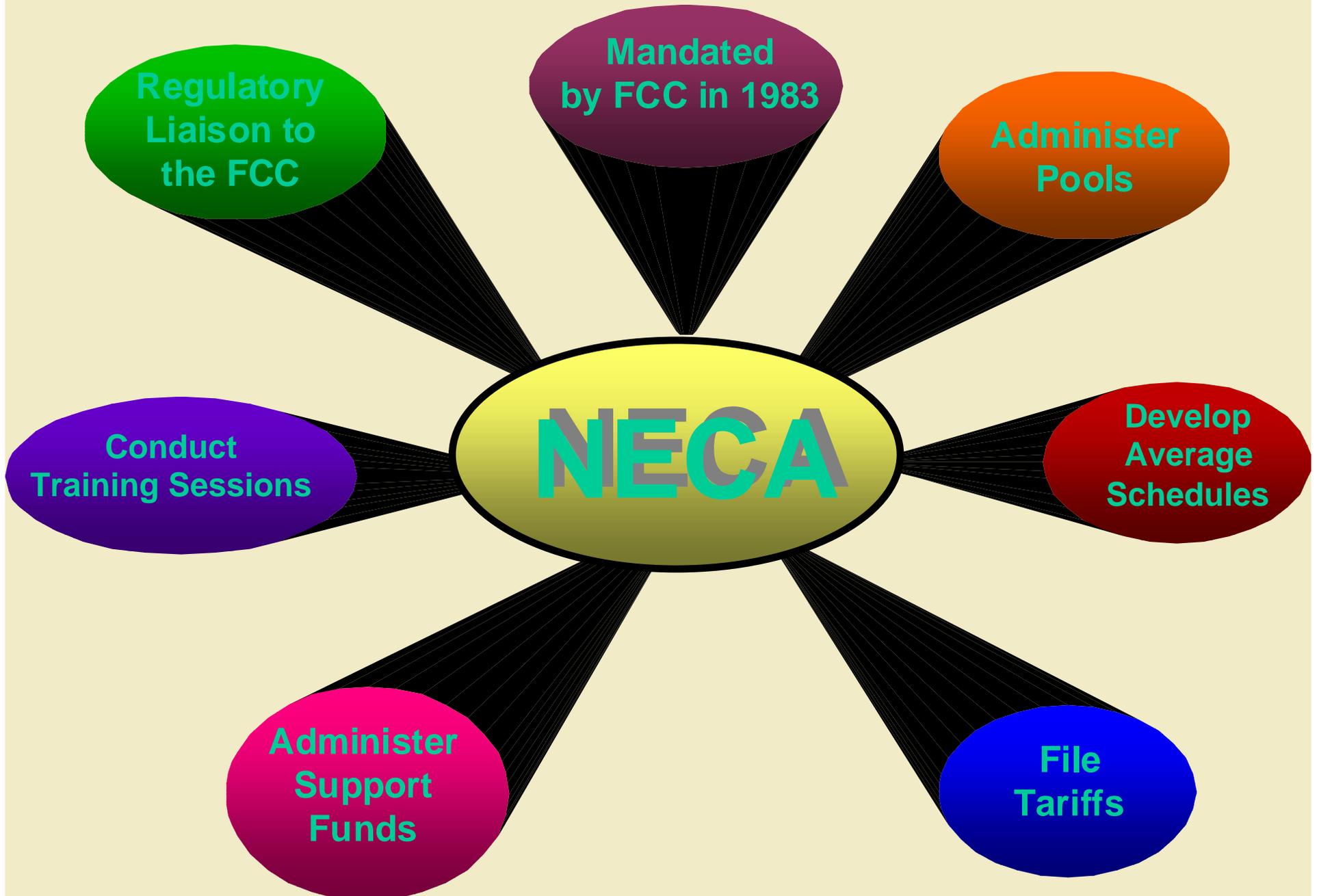


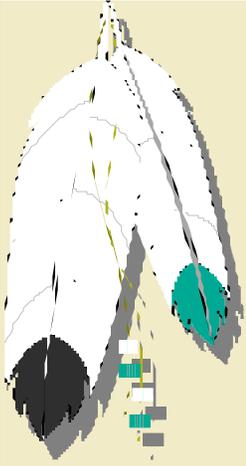
# NECA REGIONAL OFFICES



INDIAN TELECOM TRAINING INITIATIVE 2000

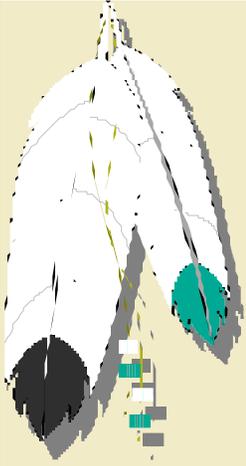
# NECA RESPONSIBILITIES





# Types of Companies

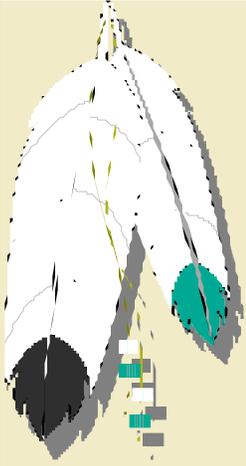
- Cost Companies
  - Price Cap
  - Rate of Return
- Average Schedule Companies



# Types of Companies

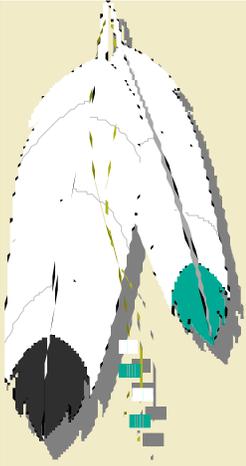
## Cost Company

- A company that receives compensation (settlements) for interstate telecommunication services based on their actual interstate investment and expenses.
- The investment and expenses are calculated from detailed cost studies.



# Types of Companies

- **Price Cap** - a form of incentive regulation where the Commission establishes limits of ‘caps’ on rates incenting companies to become efficient in order to earn the greatest level of returns within the rate limitations.
- **Rate of Return** - cost settlements are derived by calculating the authorized return on investments. A company’s settlement is not artificially limited.



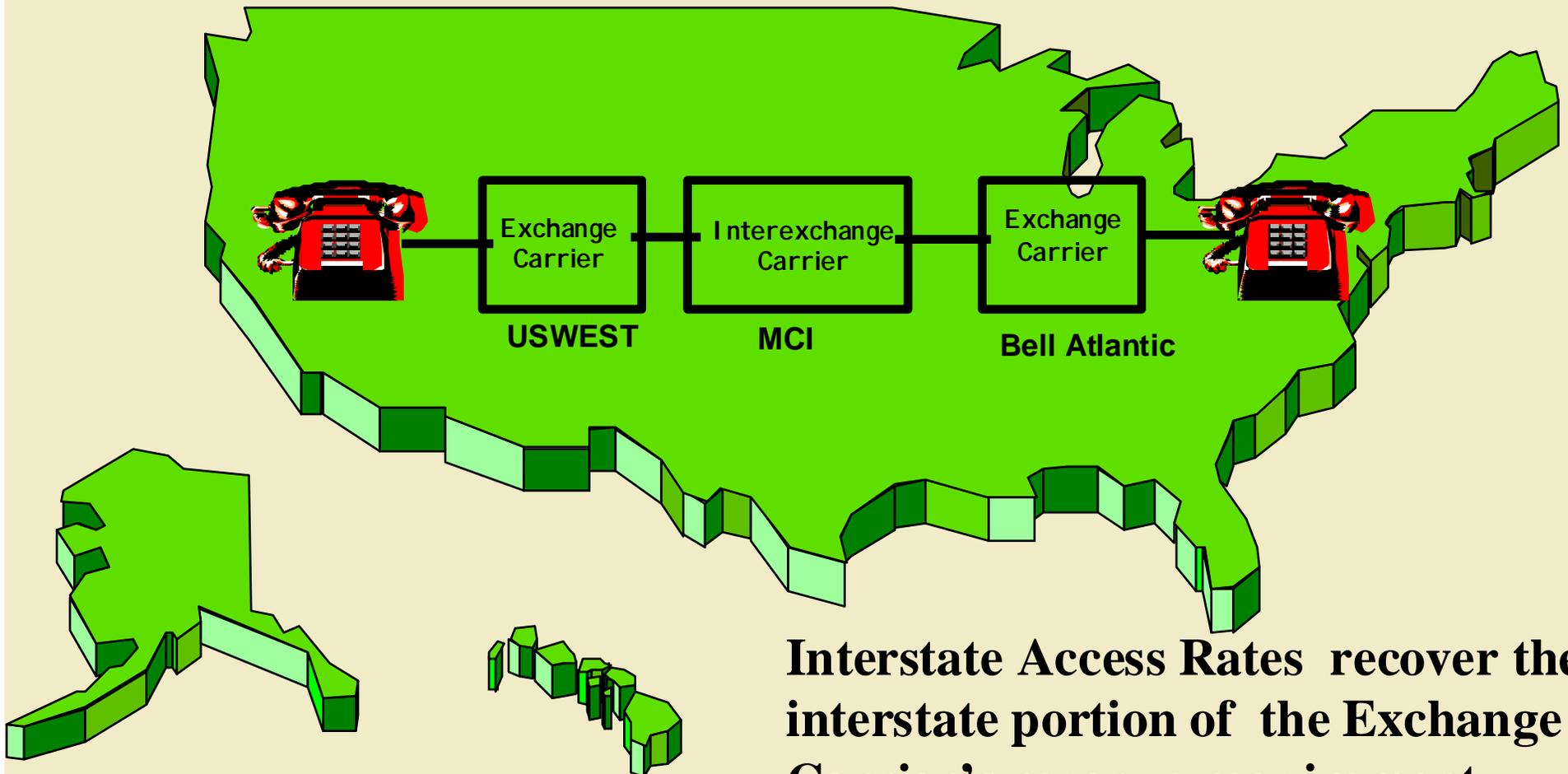
# Types of Companies

## Average Schedule Company

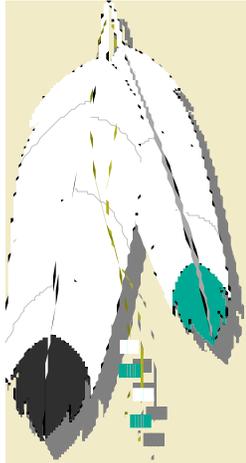
- Costs are determined on the basis of statistical formulas known as average schedules.
- This method substantially reduces the administrative costs for small companies by eliminating the need for detailed accounting and engineering studies.
- NECA currently administers interstate average schedules for over 600 telephone companies.

# What is Access?

The cost that an IXC pays for use of the Exchange Carrier's facilities.

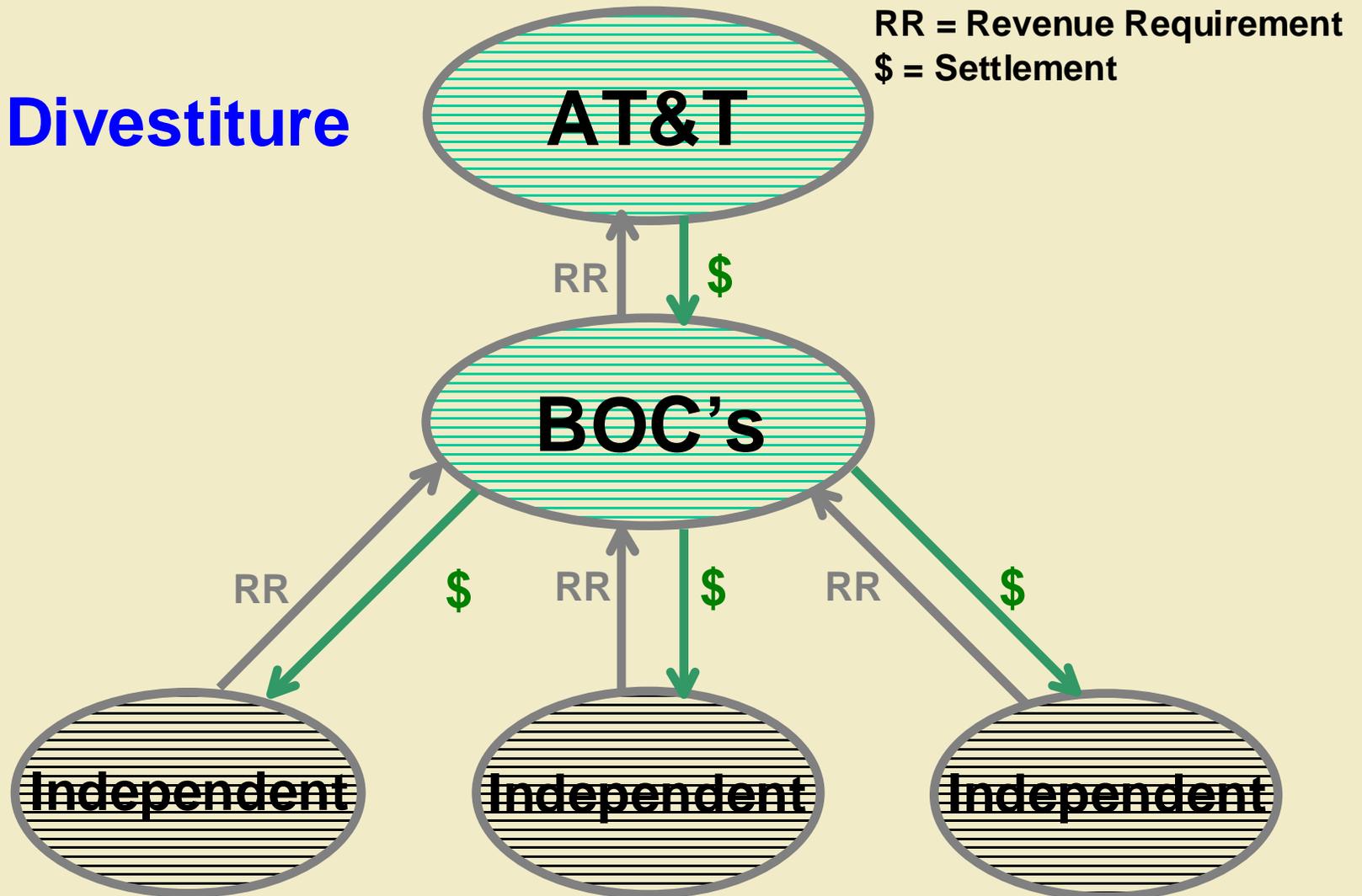


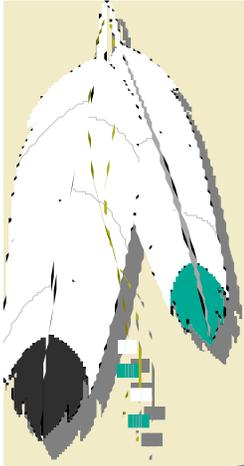
**Interstate Access Rates** recover the interstate portion of the Exchange Carrier's revenue requirement



# Why do we have Access Charges?

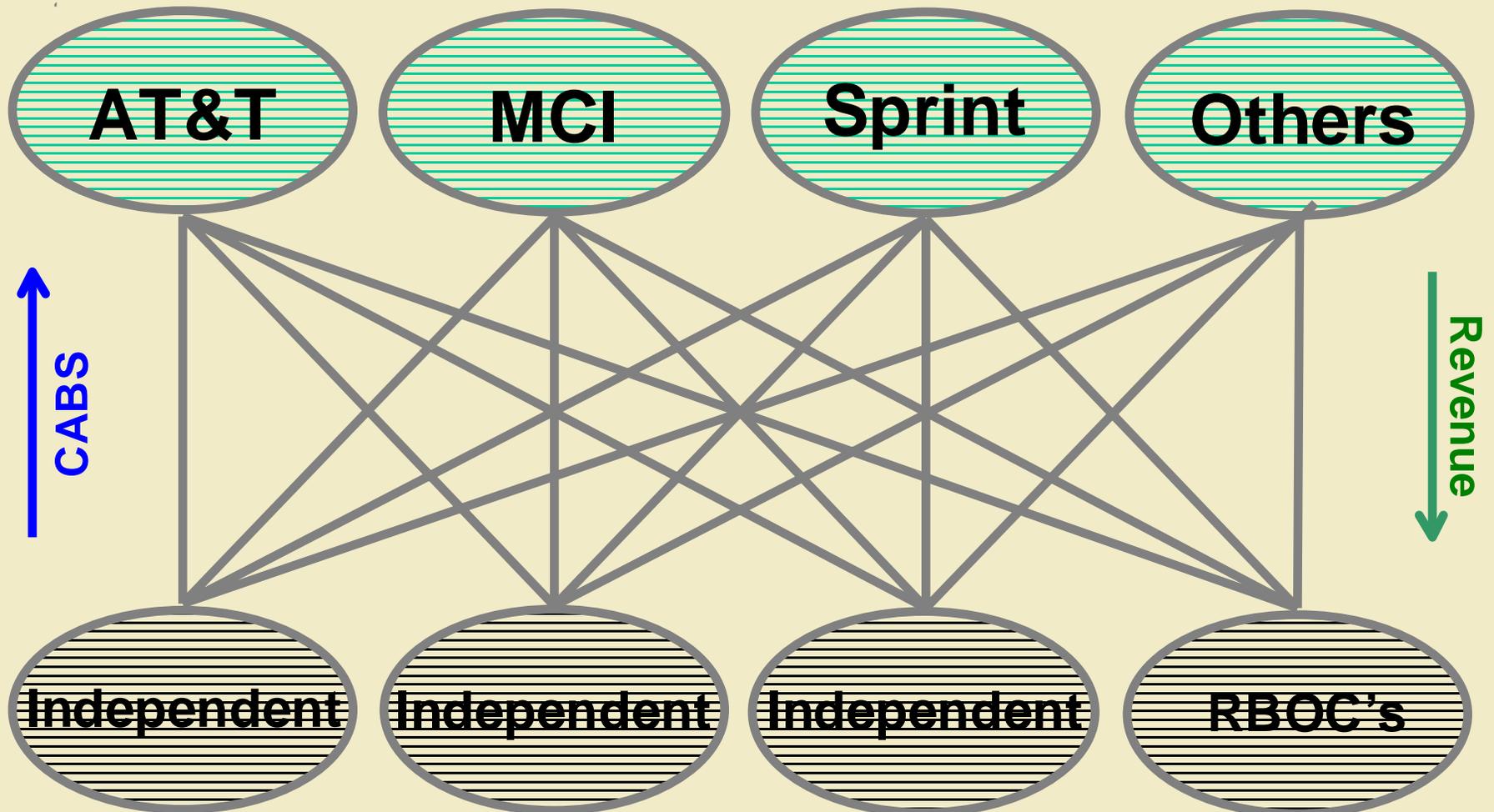
Pre Divestiture

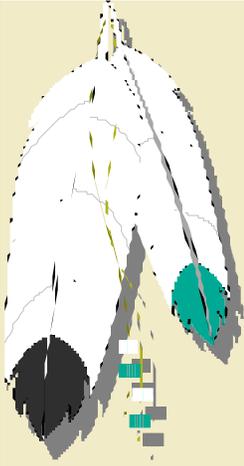




# Why do we have Access Charges?

## Post Divestiture



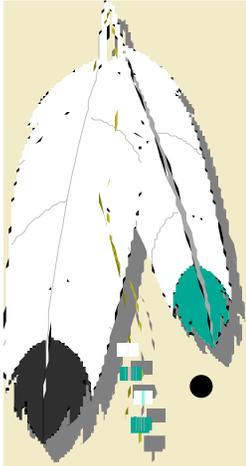


# Terms & Concepts

## Switched Access

- Switching functions are performed.
- Billed to an access customer at variable and flat monthly rates

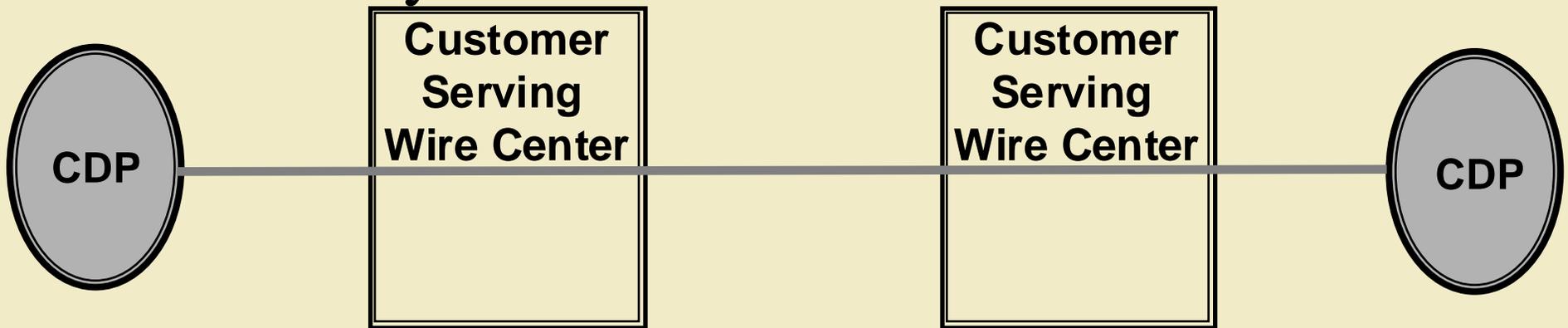


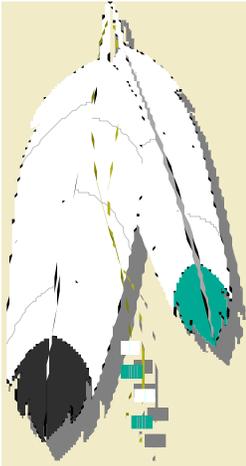


# Terms & Concepts

## Special Access

- No switching function is performed.
- Facility is dedicated from one customer to the customer at the other end
- Billed to an access customer at a flat monthly rate





# Core NECA Functions

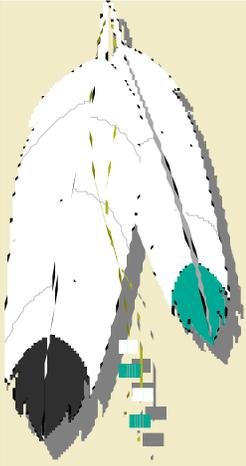
**Forecasting**

**Rate Development**

**Tariffs/CABS**

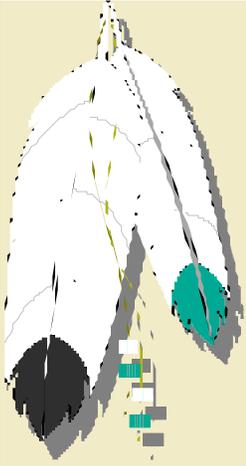
**Pooling Data**

**Settlement Processing**



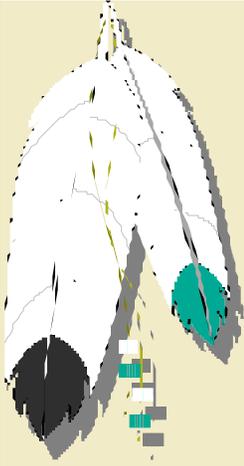
## **NECA Forecast “Philosophy”**

- Develop accurate forecasts that will produce earnings within the authorized rate of return
- Develop cost projections that will ultimately match final cost study data for individual study areas
- Develop demand projections which is the quantity of telecommunications services that customers will consume (i.e. minutes, lines, etc.)



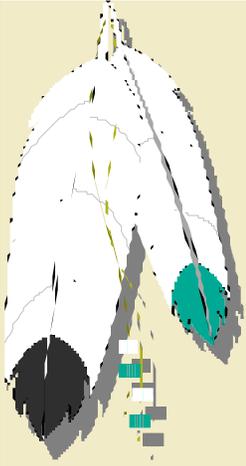
# Revenue Requirement

- **Definition** - The amount of money a regulated telephone company needs to cover the cost of doing business
- **Basic Components**
  - Operating Expenses & Other Taxes (EOT)
  - Federal Income Taxes (FIT)
  - Average Net Investment
  - Residue Ratio



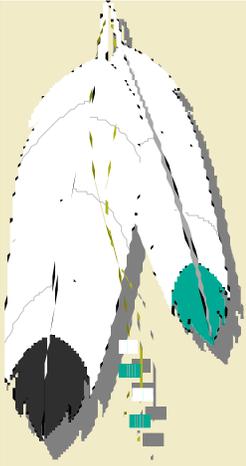
## ABC Tel. Co.'s Revenue Requirement From 1999 Cost Study

	<b>TOTAL COMPANY</b>	<b>INTERSTATE REGULATED</b>
Average Net Investment	26,350,347	13,476,814
Return (Profit)	2,897,111	1,516,142
Expenses and other Taxes	9,146,357	4,027,525
Federal Income Tax	832,410	435,873
AFUDC	24,586	11,858
Revenue Requirement (RETURN+EOT+FIT-AFUDC)	12,851,292	<b>5,967,682</b>



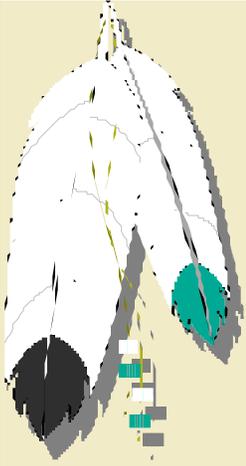
# Basics of Rate Development

- Rates are applied to access customers that use an exchange carrier's facilities
- They recover the interstate portion of the exchange carrier's revenue requirement
  - Flat rated
  - Usage based
  - Non-recurring
  - Miscellaneous



# Basics of Rate Development

- Revenue from billing access rate goes to recover the pools' revenue requirement
- Rates are developed for a prospective period
- Revenue requirements and demand quantities are estimates
- Rates are average for all pool participants

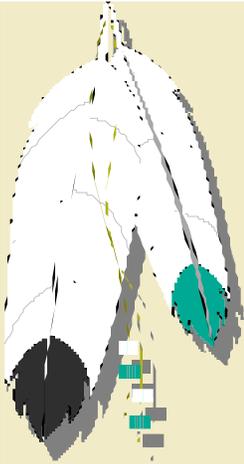


# Basics of Rate Development

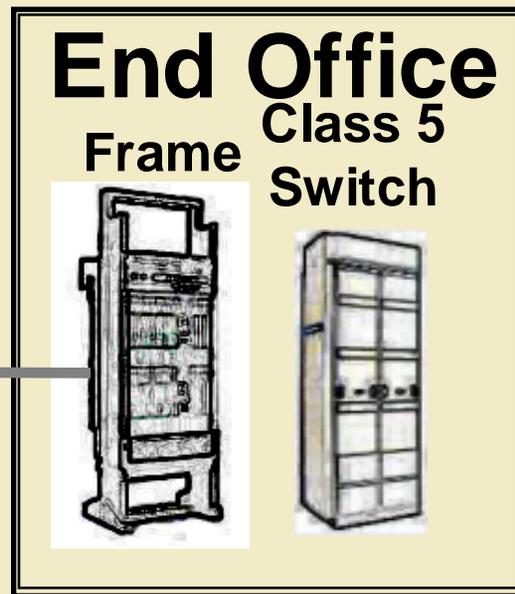
- Most rate filing requires essentially the same process to be followed

$$\text{Rate} = \frac{\text{Revenue Requirement}}{\text{Demand}}$$

- A few rates are developed based on data collections



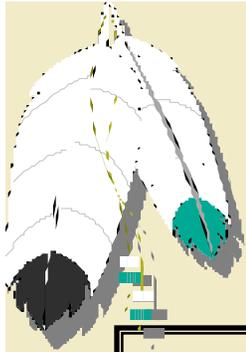
# Common Line Rates



Subscriber  
Line Charge

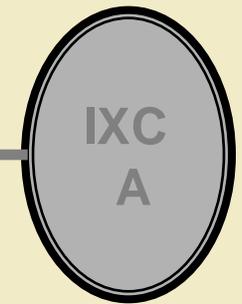
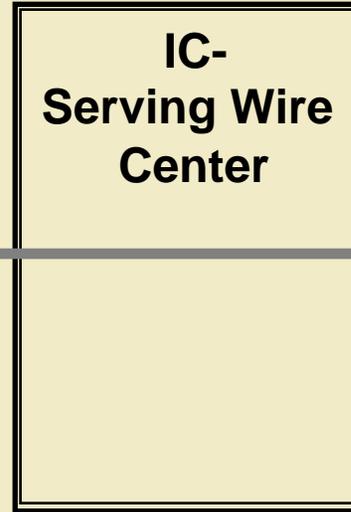
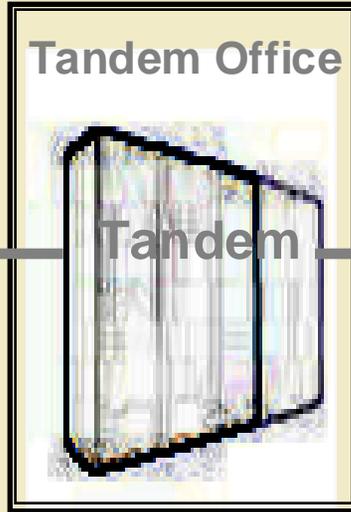
Carrier Common  
Line Charge

Special Access  
Surcharge



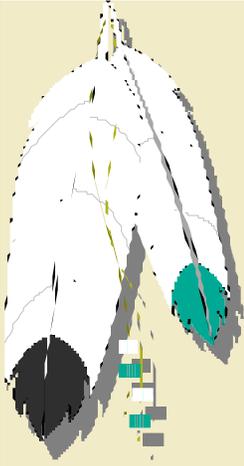
# Traffic Sensitive Rates

## Switched Access



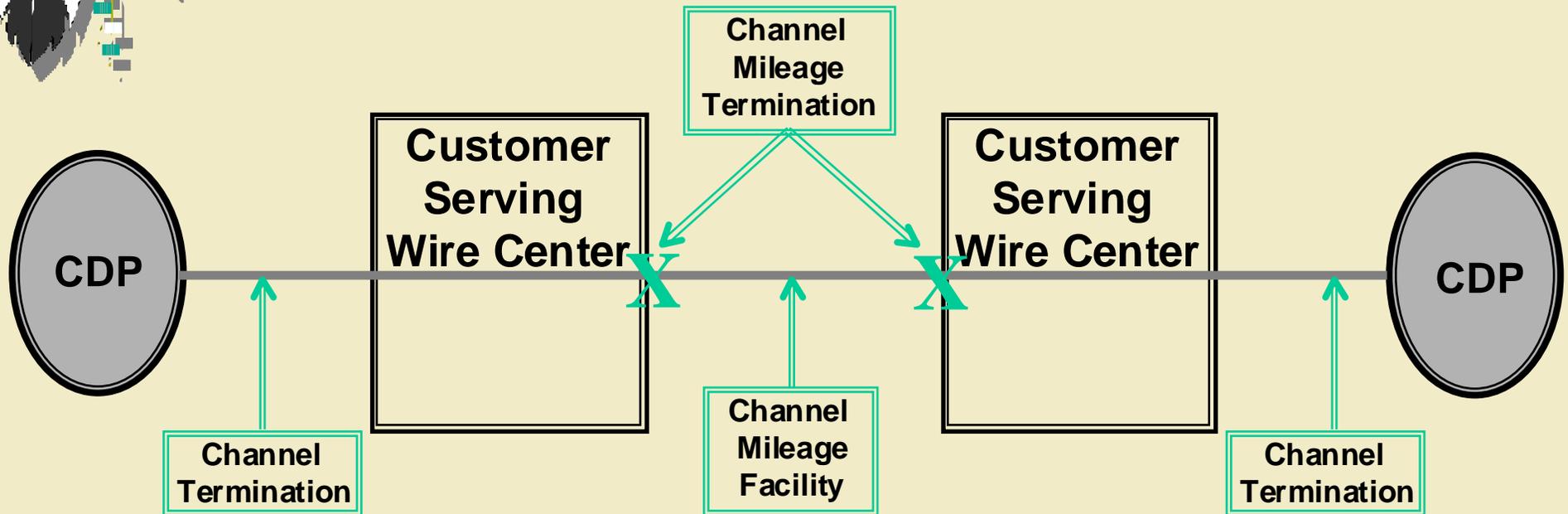
Local Switching  
Info Surcharge

- Transport Rates**
- Tandem Switched Transport
  - Tandem Switched Facility
  - Direct Trunked Transport
  - Direct Trunked Facility
  - Tandem Switching
  - Entrance Facility
  - Transport Interconnection Charge
- Non-recurring & Misc. Rates**
- Access Order Charge
  - Installation Charge
  - Trunk Activation
  - 800 Database Query
  - Etc...



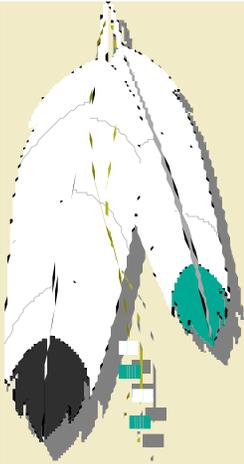
# Traffic Sensitive Rates

## Special Access

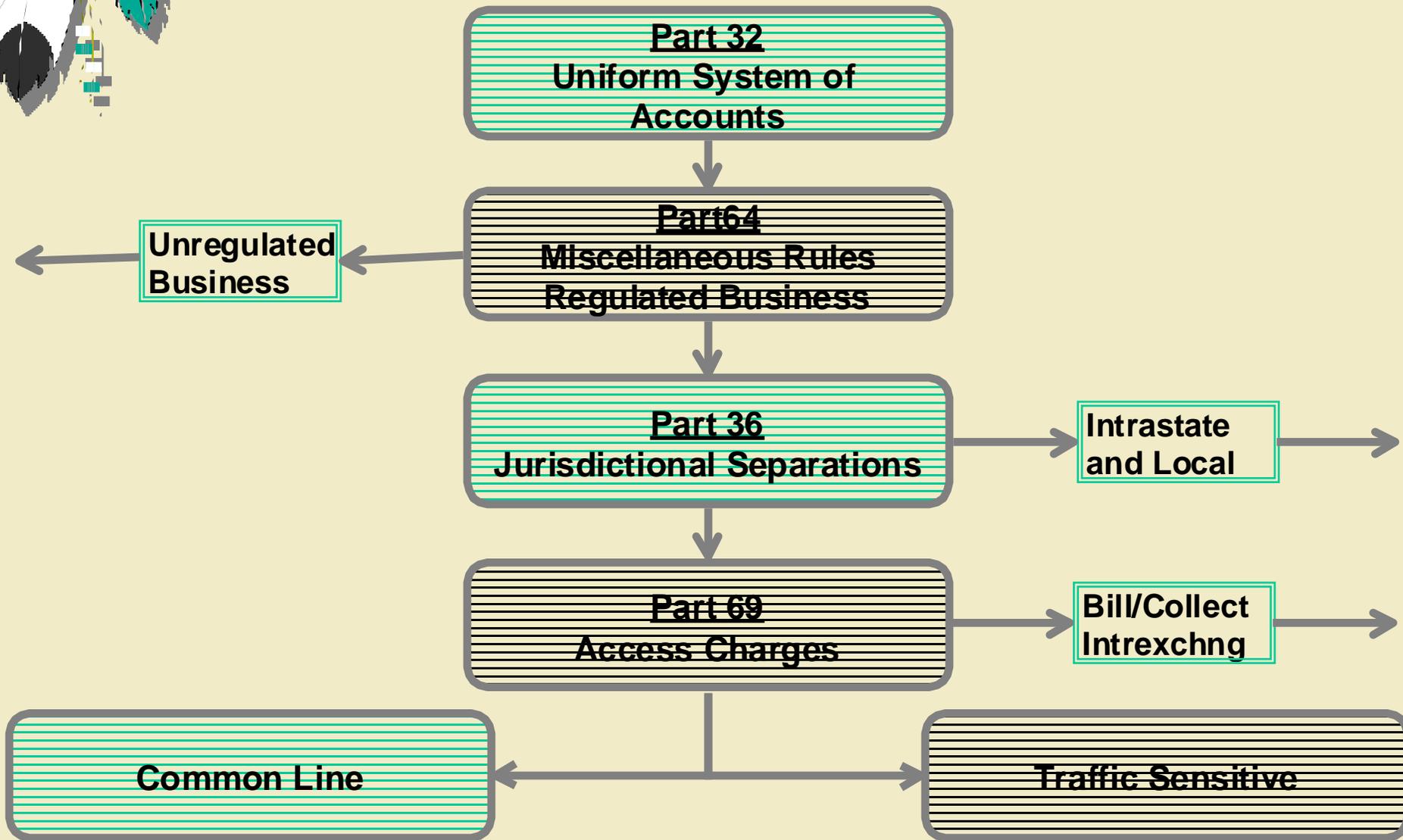


### Non-recurring & Misc. Rates

Access Order Charge  
Installation Charges  
Option Features and  
Functions

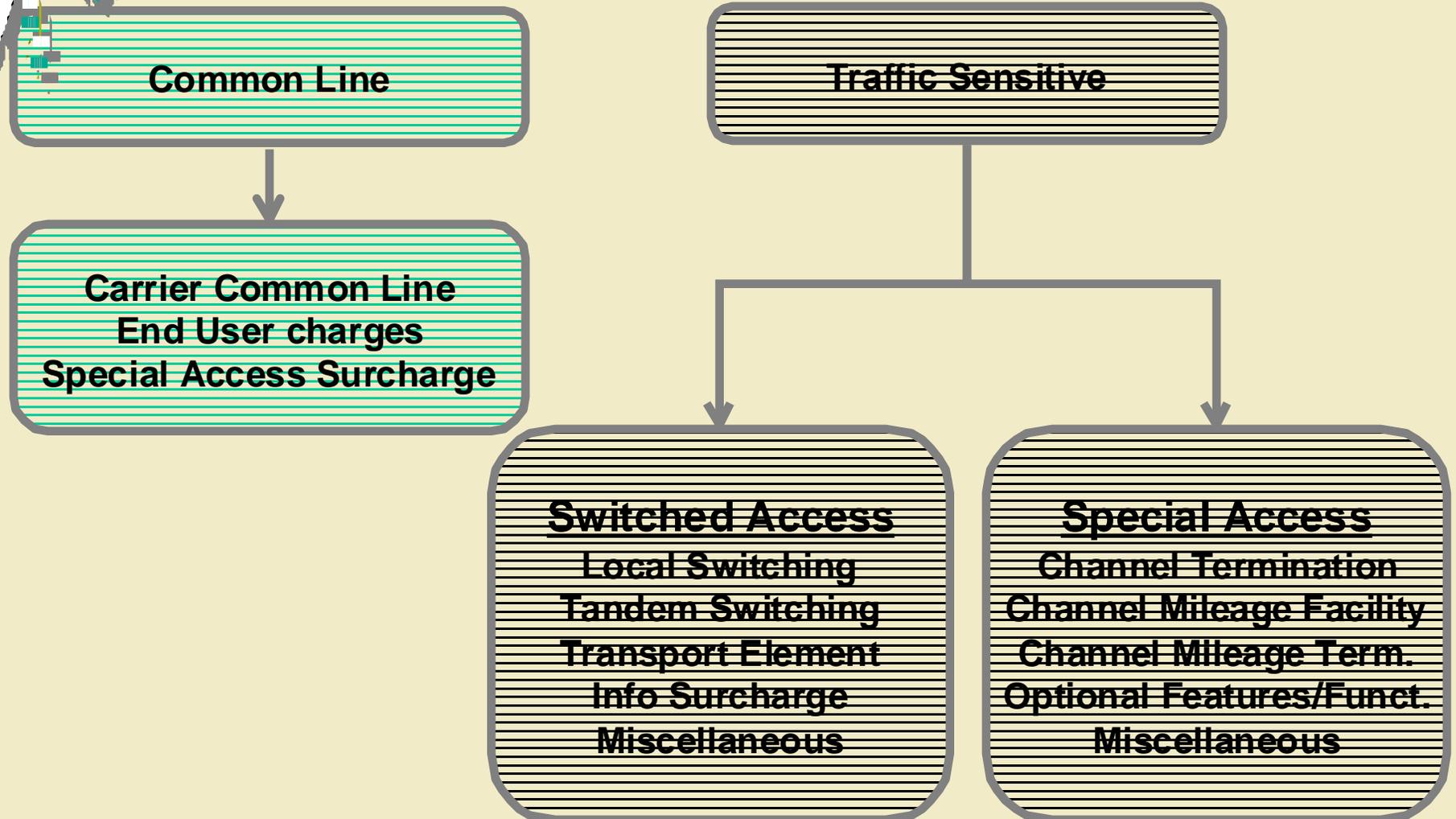
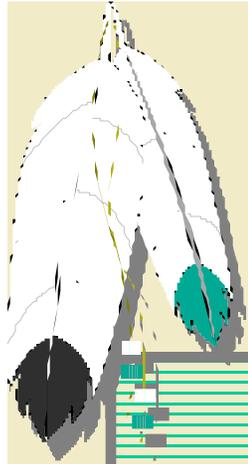


# FCC Rules & Regulations

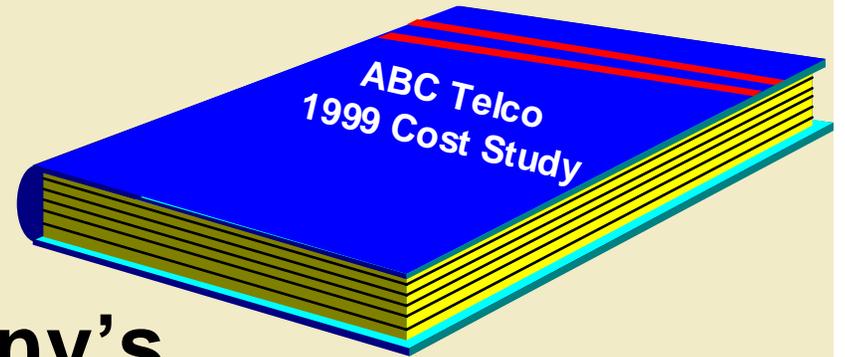
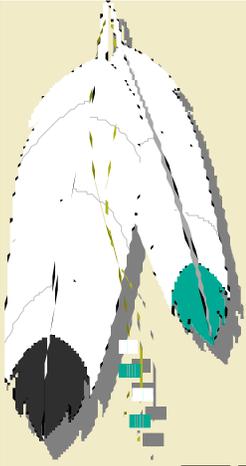


# FCC Rules and Regulations

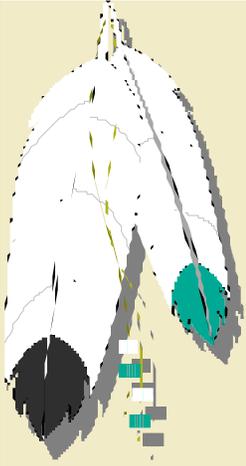
## Part 69



# Cost Study

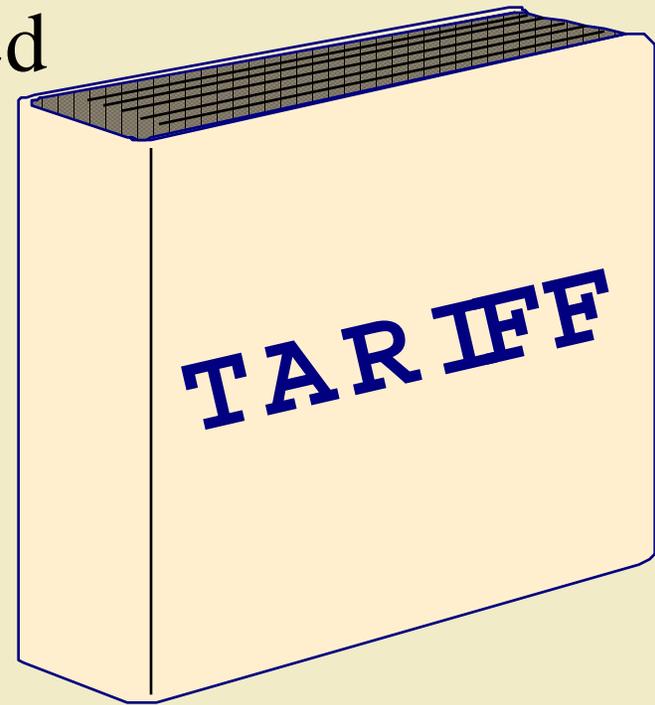


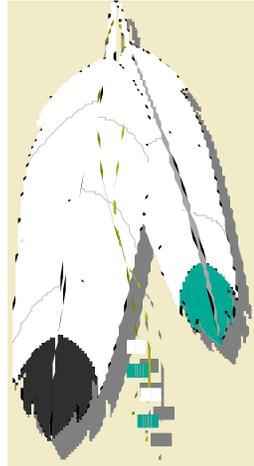
**The final product that identifies a company's total costs and separates them according to FCC rules between state and interstate and then separates the interstate costs among the interstate access elements for reporting to the NECA pools.**



# Why Do We Need a Tariff ?

- Rules and regulations
- Type of service offered
- Rate structure
- Rate application
- Assist in billing





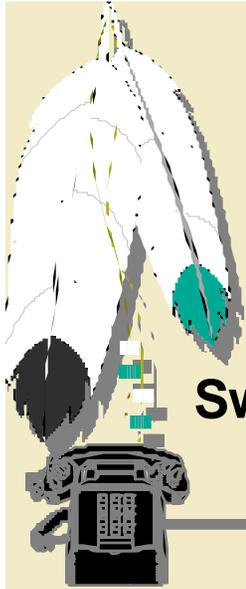
# NECA Tariffs

## Tariff # 3 - Special Construction

- Special Construction is required when 1) facilities are not available to meet an order, and 2) the telephone company constructs the facilities and 3) one or more of the following conditions exist
  - The Telephone company has no other requirement for the facilities requested
  - Other than normal facility or route is requested
  - More facilities requested than normally required to meet that service
  - Expedited construction requested
- Requires Individual Case Basis (ICB) like filing

# NECA Tariffs

## Tariff #4



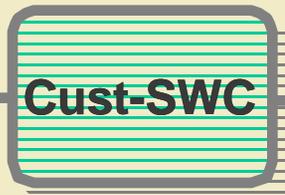
Switched Access



MP



Special Access



MP

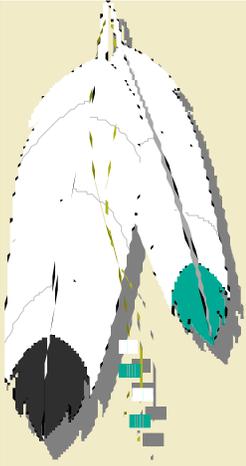


Mileage Sensitive Rates

Tandem Switched Facility (switched access)

Direct Trunked Facility (switched access)

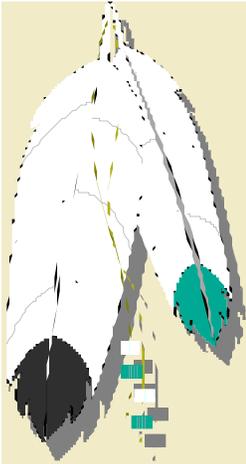
Channel Mileage Facility (special access)



# NECA Tariffs

## Tariff # 4

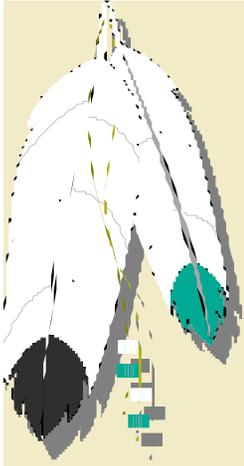
- Database - Detailed information on every switch for ordering and billing:
  - Vertical & Horizontal Coordinates
    - Calculate airline mileage
    - Mileage rounded up
  - Billing Percents (BPs)
    - All involved parties agree
    - Combined BPs equal 100 percent
  - Office Type Codes
- Billing Authority



# NECA Tariffs

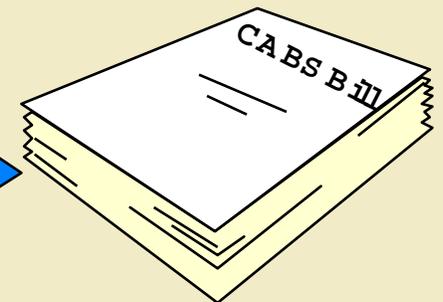
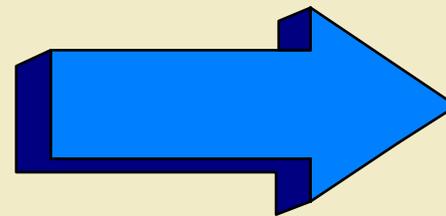
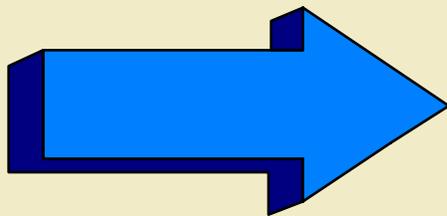
## Tariff # 5

- Prepared by NECA in accordance with FCC Rules
- Provides issuing carriers rules for billing and provisioning of Interstate Access Charges
  - Regulations
  - Rates
  - Access ordering requirements
- Billing Authority



# Carrier Access Billing System

- A mechanized system which produces the billing statements (CABS bills) for the access services that the exchange carriers provide to access customers

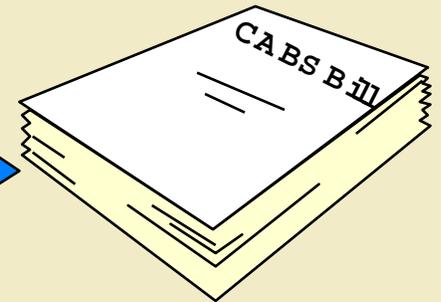
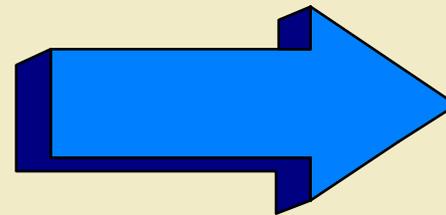
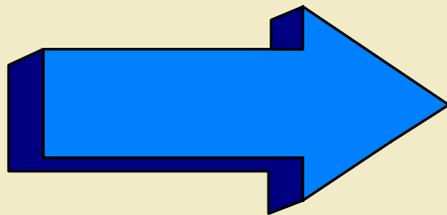




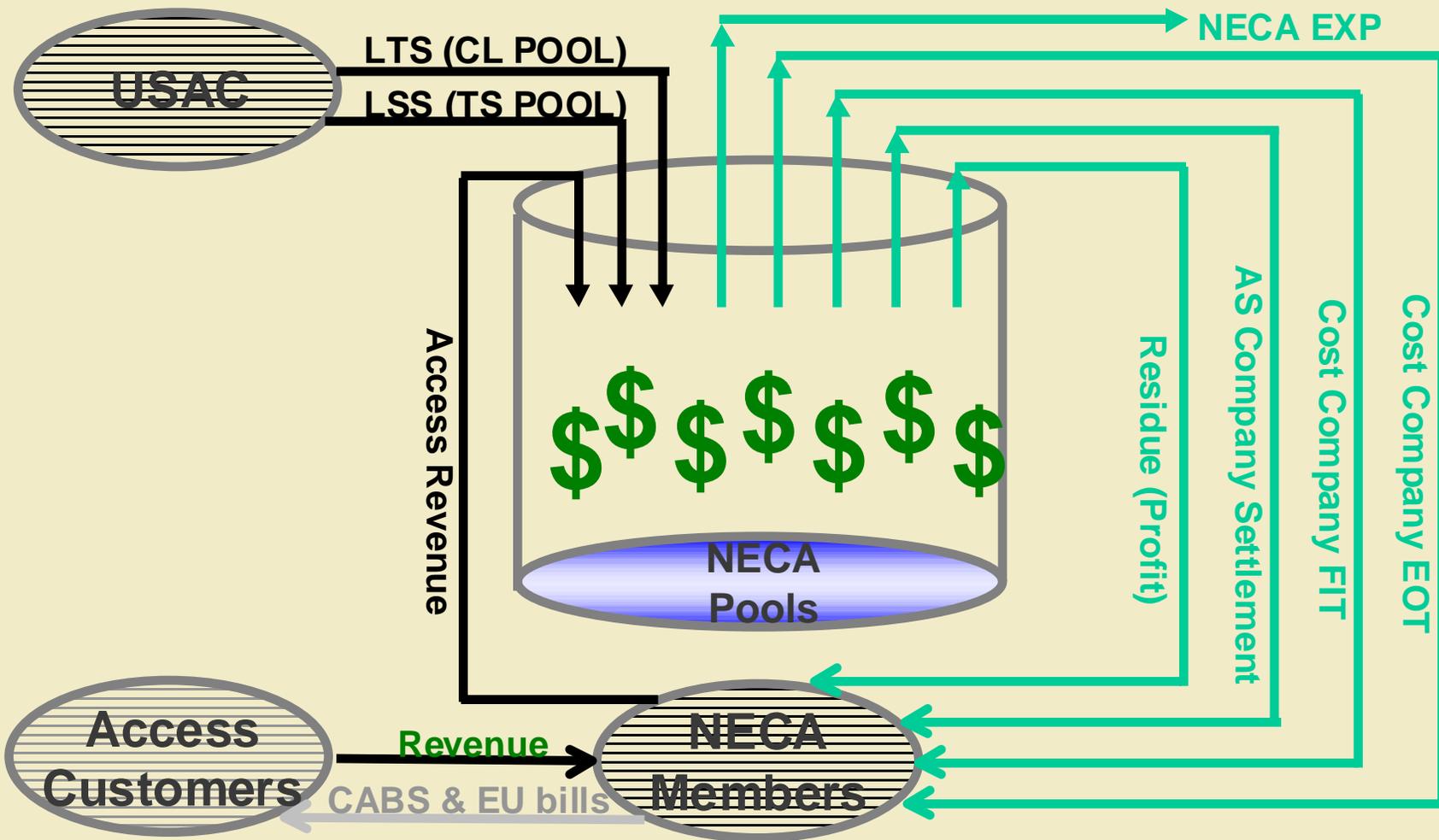
# Carrier Access Billing System

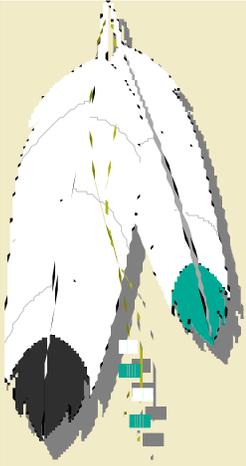
- A CABS bill is produced for each access customer and provides a detailed accounting of access charges
- The CABS bill is formatted in a variety of designs depending on the vendor of the

CABS system



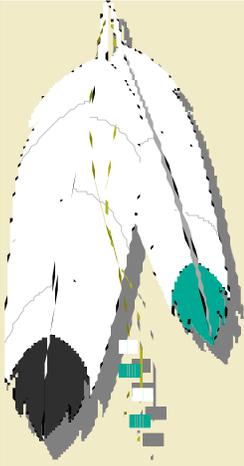
# NECA Reporting - The Pools





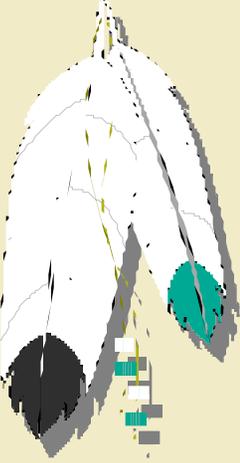
# The Pooling Concept

- A Pool is a revenue distribution mechanism to handle interstate settlements
- Two Pools: Common Line and Traffic Sensitive. Each month is separate from every other month.
- Each EC receives its Settlement: share of total pool revenue available to cover their interstate regulated revenue requirement.
- Settlements are initially based on estimates.



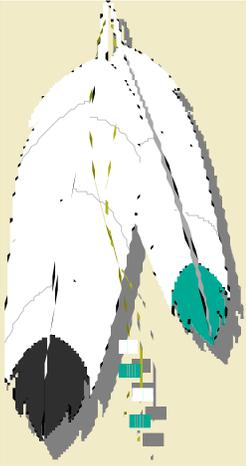
# How long does each Pool last ?

- Each month two new pools open (CL & TS)
- Each pool remains open for 25 months
  - e.g. CL Pool for 1/2000 remains open till 1/2002
- Allows member to enter estimated data, then true it up
- Changes in prior months settlements are netted with current months settlement
  - Cost study/cost estimate change
  - Revenue change
  - Rate of return change



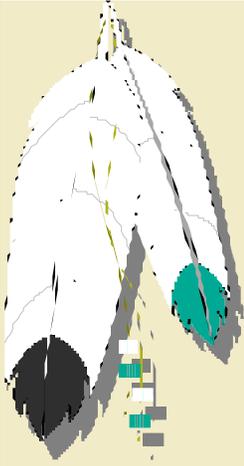
# Why Pool ?

- Financially shields members from fluctuations in revenue and expenses
- Eliminates burden of filing own tariff
- Allows companies to recover costs using average schedules
  - Eliminates burden and expense of producing a cost study
  - Provides incentive to be more cost effective



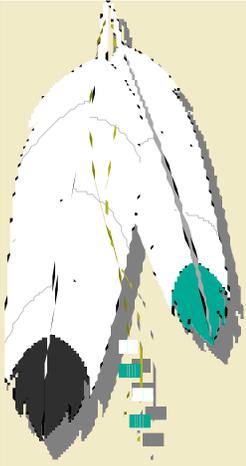
# Pool Participation

	<u>Access Lines</u> (in millions)	<u>Study Areas</u>
• <b>Cost Company</b>	<b>8.73</b>	<b>553</b>
• <b>Average Schedule</b>	<b>2.78</b>	<b>684</b>
• <b>Common Line:</b>	<b>11.5</b>	<b>1237</b>
• <b>Traffic Sensitive:</b>	<b>5.5</b>	<b>1080</b>



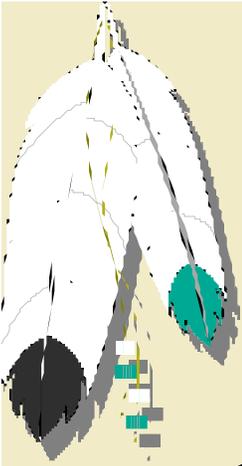
# Pool Participation Responsibilities

- EC Responsibilities
  - Bill the appropriate NECA tariff rates to access customers
    - bill what is ordered
    - bill on behalf of the pool
  - Report adjustment on a timely basis
  - Certifying the completeness and accuracy of data reported to NECA

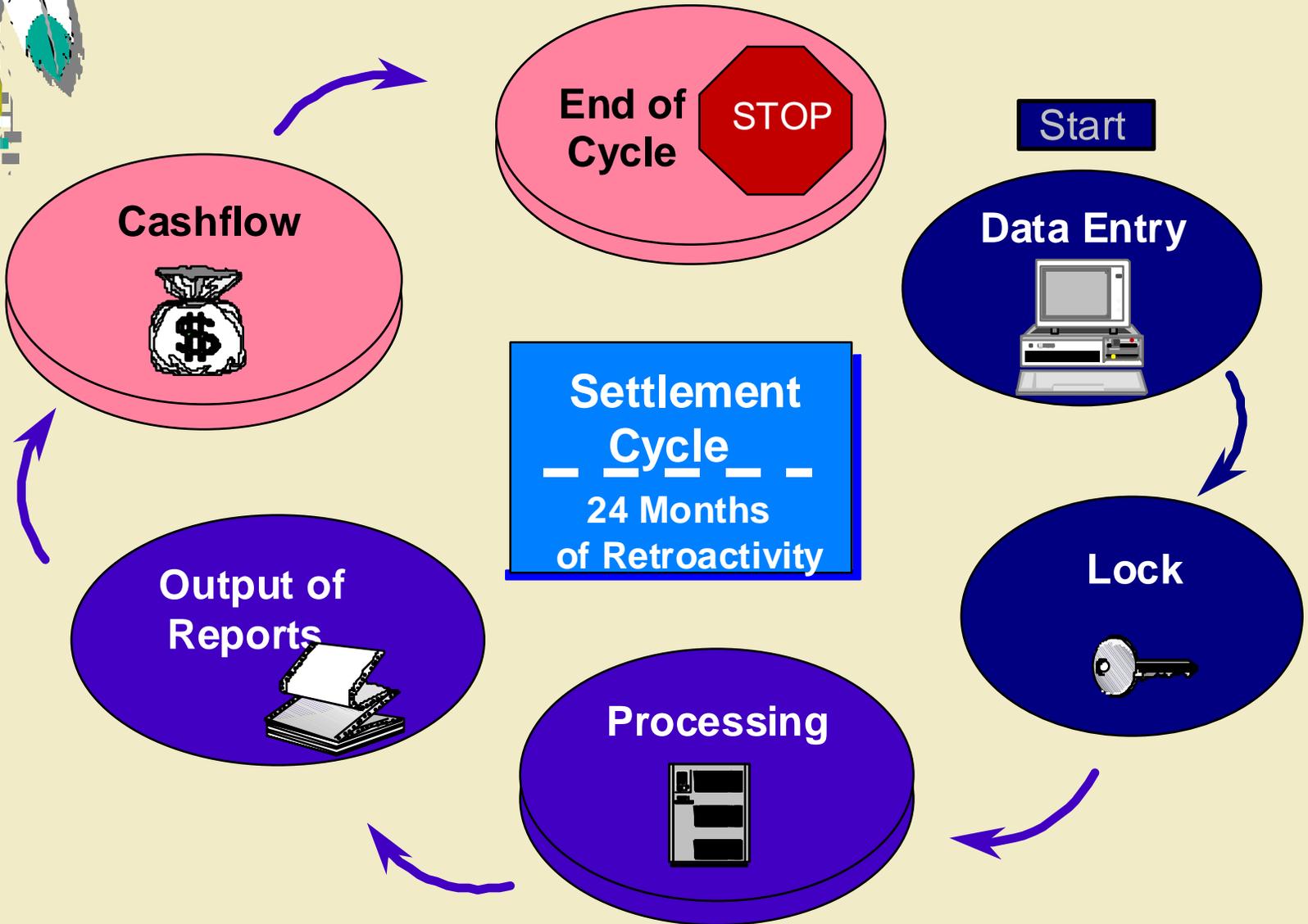


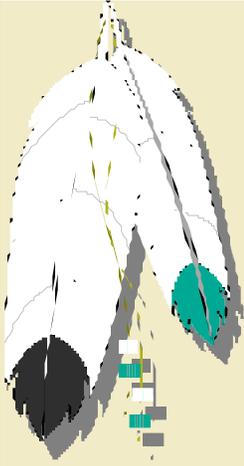
# Pool Participation Responsibilities

- NECA Responsibilities
  - Develop and maintain nationwide interstate tariff rates
  - Calculate settlements for 25 months for every EC
  - Collect and distribute monthly net balances (cash flows to/from the pool)
  - Ensure integrity of all pooling data
    - Cost study review
    - Line haul review
    - Monthly settlements data review
    - CABS reviews



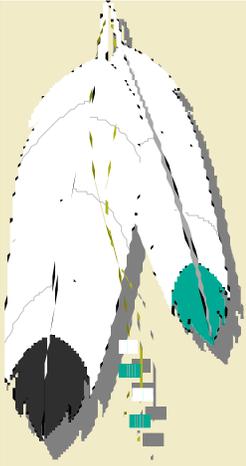
# NECA Settlement Cycle





# Data Entry - Who, How & What

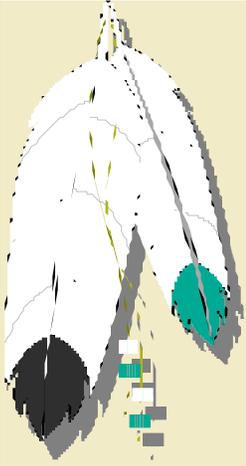
- WHO enters data:
  - EC Staff
  - Consultant
  - NECA Regional Staff
- HOW is data entered:
  - On-line directly by the EC or Consultant
  - Submitted to NECA region for entry
- WHAT data is entered:
  - Revenue and Demand Data - generated through your interstate billing and end user charges
  - Cost Data - generated through cost forecasts and cost studies



# Calculation of Residue Ratio

- Profit (rate of return or residue)
  - Calculate Pool Residue Ratio
    - Available pool residue amounts are divided by total pool investment dollars
    - Calculated for each pool, each month
    - Fluctuates based on true ups of all pool members

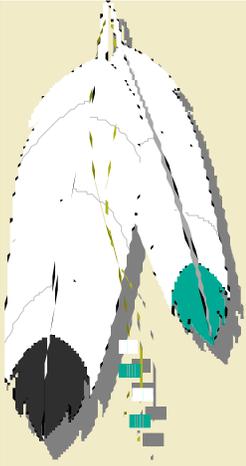




# Settlement Processing

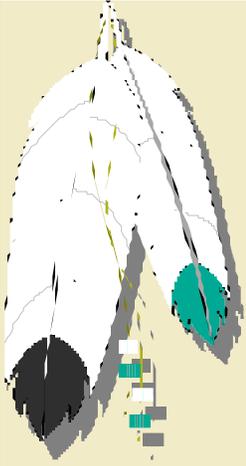
- EC settlement calculated for 25 month period
  - current month (estimate)
  - 24 prior months
- Costs calculated into settlements
  - by month
  - by pool
  - includes revised rate of return
- Settlement \$\$ netted with revenue held by EC
- Net balance produced for each month and is “rolled-up” for the entire 25 month period

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# Settlement Processing

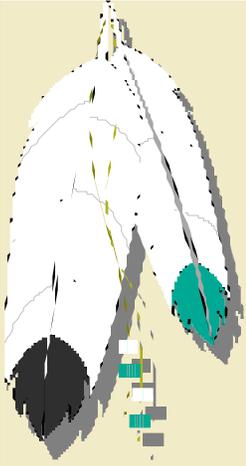
- Settlement Statement (AS3000/EC3050) produced monthly
  - Current month's calculation
  - Prior period net balance amounts by pool participation
    - Detail displayed on AS/EC2053 form
  - Total Net Balance calculated
    - If positive, NECA pays EC
    - If negative, EC pays NECA



# Support Funds

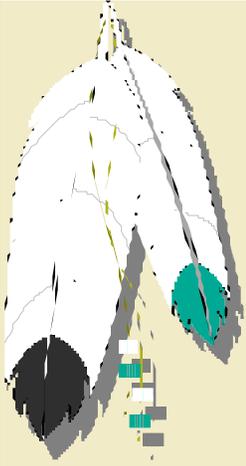
Series of support funds were established to foster the concept of “Universal Service”

- Established in Telecommunications Act of 1934
  - Affordable telecommunications to as many users as possible
- Re-defined by Telecommunications Act of 1996
  - Schools and Libraries
  - Rural Health Care
  - Competition
  - Access Reform



# Eligible Telecommunications Carrier

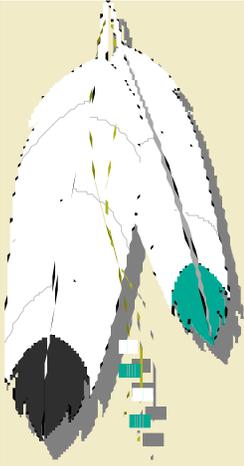
Local telephone companies must be certified as eligible carriers by the State or Federal Commission in order to receive Universal Service Funds



## Eligibility (cont'd)

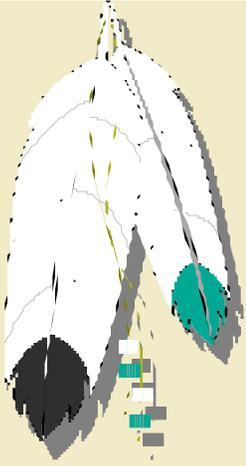
Eligibility based on:

- Ability to offer services supported by federal universal service support mechanisms using its own facilities or a combination of its own facilities and resale of another carrier's services throughout the service area for which the designation is received.
- Advertise the availability and charges of such services throughout the service area for which the designation is received.



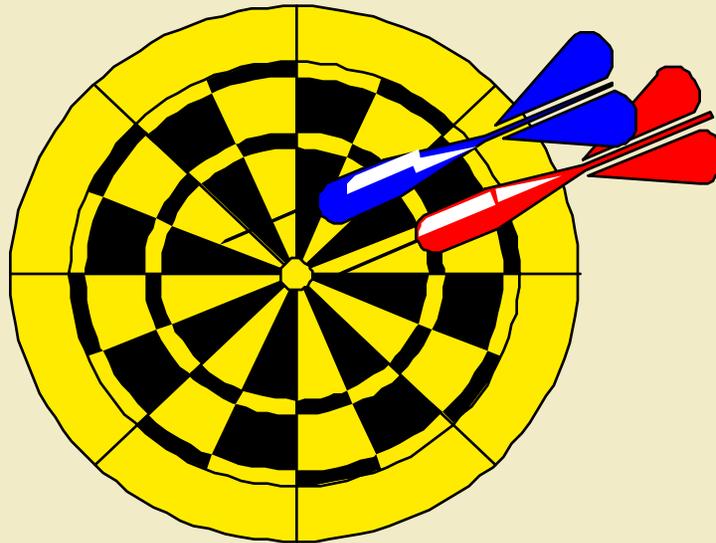
## **Universal Service Programs**

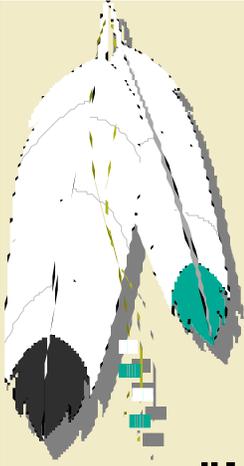
<b>High Cost Fund</b>	<b>Annual</b>
<b>Universal Service Fund</b>	<b>\$893M</b>
<b>Long Term Support</b>	<b>480M</b>
<b>Local Switching Support</b>	<b>389M</b>
<b>Low Income Consumers Fund</b>	<b>\$537M</b>
<b>Lifeline Assistance</b>	
<b>Link-up/Connection Assist.</b>	
<b>Schools &amp; Libraries Fund</b>	<b>\$2.35B</b>
<b>Rural Health Care Fund</b>	<b><u>\$1.6M</u></b>
<b><u>TOTAL FUNDS</u></b>	<b><u>\$ 4.65B</u></b>



# Universal Service Fund Background

- Concept originated in late 1970's
- Fund established by FCC (Dockets 78-72 and 80-286)
- Implemented in 1986
- Re-targeted in 1988

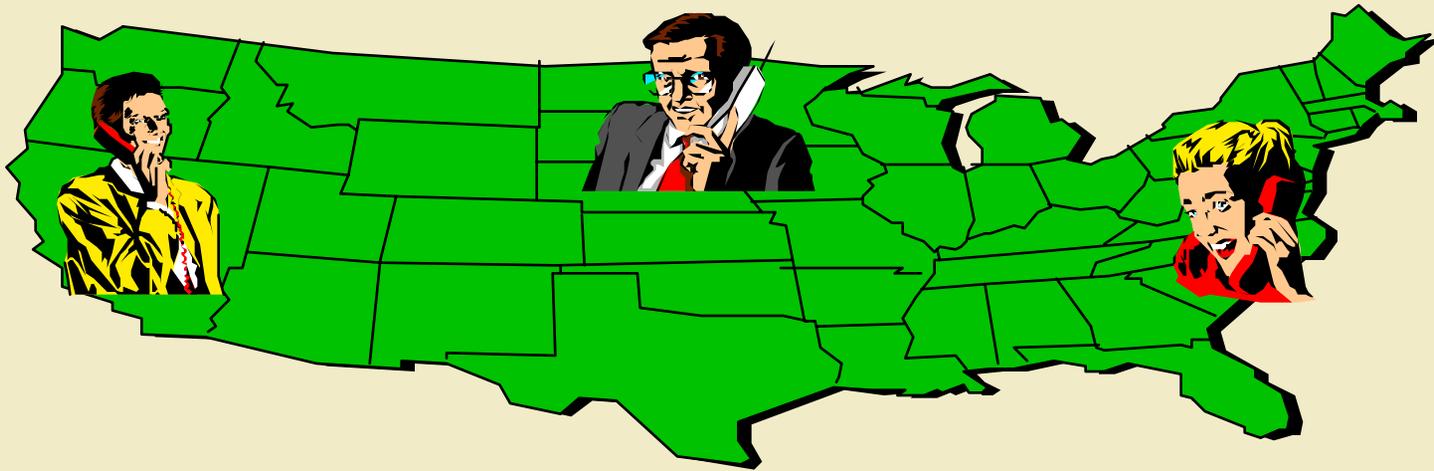


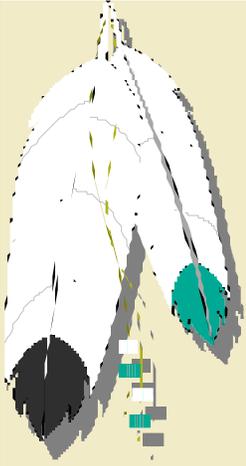


# Universal Service Fund

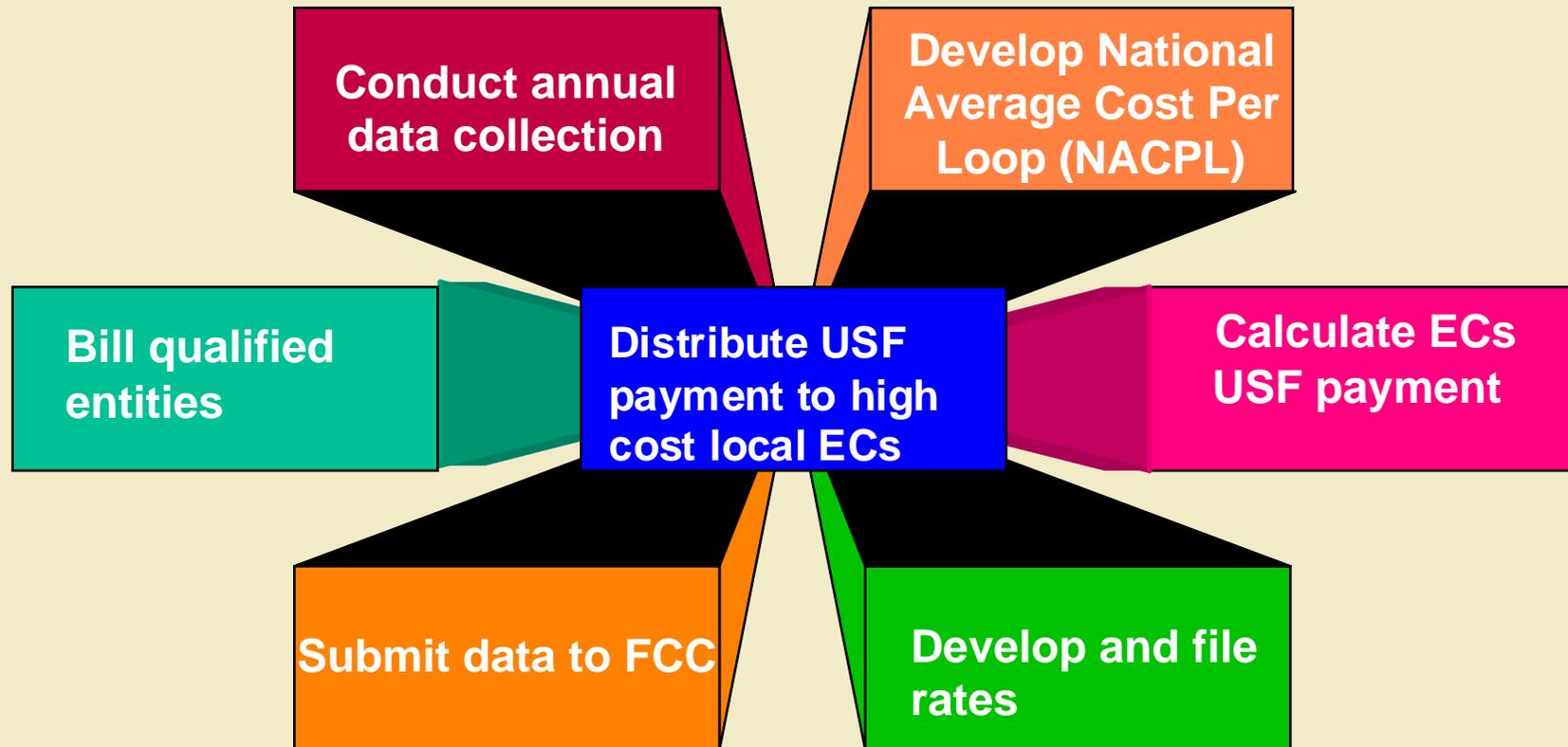
## Purpose

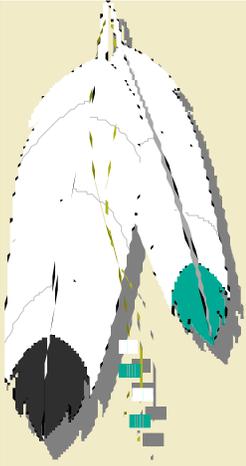
- **"Universal Service" is the cornerstone of public policy**
  - Assures continuation of affordable basic telephone service for all areas of the country





# Universal Service Fund Fund Administration

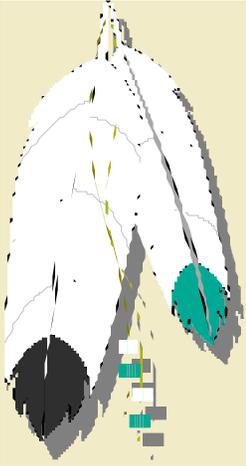




# Support Funds

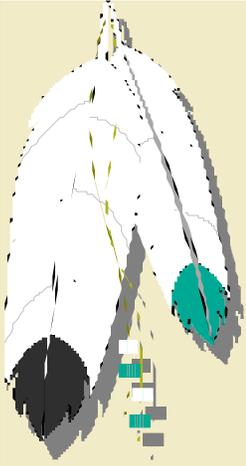
## High Cost - LSS and LTT

- Local Switching Support (LSS) - Fund established to replace implicit subsidy in Local Switching rate
  - Dial Equipment Minutes (DEM weighting)
- Long Term Support (LTS) - Fund established to replace implicit subsidy in the Carrier Common Line (CCL) rate
  - Initially established to keep rate parity when CCL pool participation became voluntary



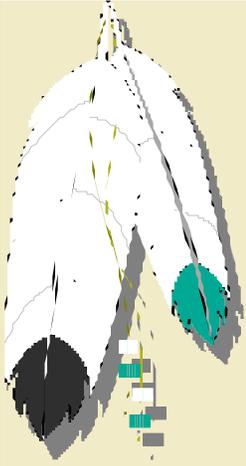
# Support Funds Schools & Libraries

- The FCC created a mechanism for K - 12 schools, libraries and rural health care providers to receive deep discounts on telecommunications, video and internet services
- This Federal program funds both state and interstate eligible services
- Discounts based on cost to serve and level of poverty



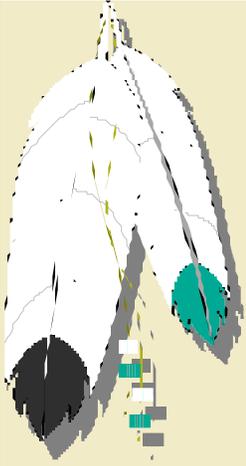
# Support Funds Rural Health Care

- Telecommunications Act established a fund to help support telecommunications and advanced services to Rural Health Care Providers
- Discounts provided to eligible Rural Health Care Providers based on difference between Rural and Urban rates for services



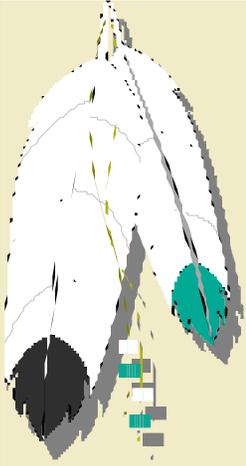
# Low Income Programs

- Lifeline Program
  - Helps low-income subscriber by offsetting Subscriber Line Charge and in some cases local service charges
- Linkup Program
  - Offsets portion of telephone installation charges
  - Defrays interest expense of up to \$200 for one year



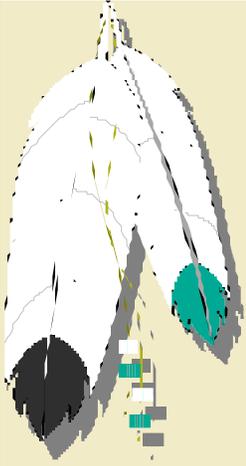
# Low Income Programs

- Toll Limitation Service Program
  - Reimburses carrier for providing free toll blocking toll control which allow subscribers to limit in advance their toll usage per month
- Presubscribed Interexchange Carrier Charge
  - reimburses carrier for PICC not charged to low income subscribers for amounts charged to subscribers who do not subscribe to long distance service from an IXC



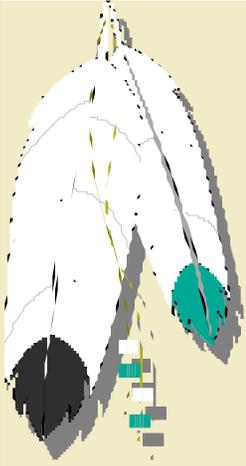
# Other Funding Programs

- Telecommunications Relay Services (TRS)
  - Fund enabling people with hearing and speech disabilities to make calls using specialized equipment to other people who do not have similar equipment
    - Established in 1993



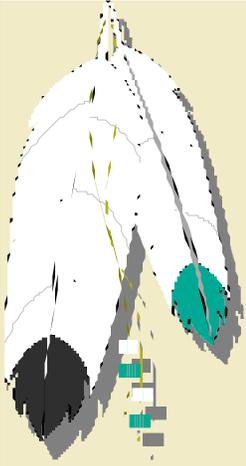
# Other Funding Programs

- State Universal Service programs
  - Collection and distribution of funds for various state programs
    - High cost assistance, Lifeline assistance, E911
    - Arkansas, Arizona, Kansas, Nevada, Oklahoma, Texas, Vermont, Pennsylvania and Puerto Rico



# Other Funding Programs

- NBANC
  - The billing and collection agent of the North American Numbering Plan Administrator. NBANC is responsible for the collection of funds to support numbering administration for telecommunications services from the U.S. telecommunications industry and other NANP member countries



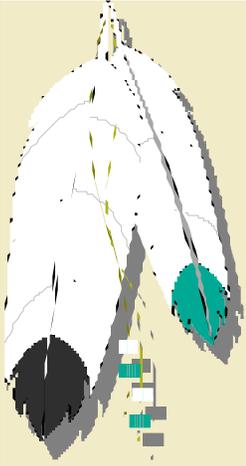
# More Information

**NECA Website:**

**[NECA.ORG](http://NECA.ORG)**

**USAC Website:**

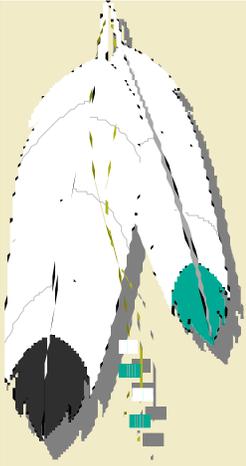
**[USAC.ORG](http://USAC.ORG)**



# NECA Contact List

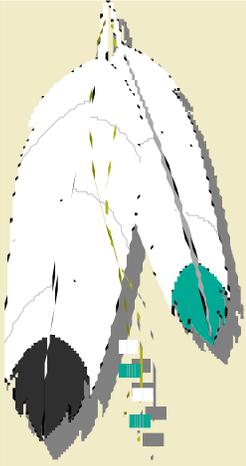
Headquarters	1-800-228-8597
Eastern	1-800-228-8398
Midwest	1-800-323-4953
Pacific	1-800-223-8495
Southern	1-800-223-7751
Southwestern	1-800-351-9033
Western	1-800-892-3322
North Central	1-800-228-0180

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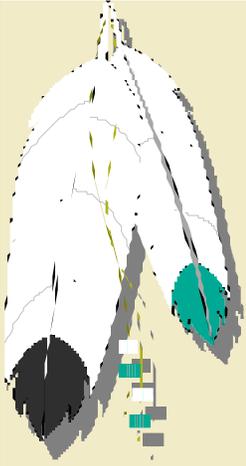
# Course Glossary

- Access Customer - A customer that purchases access services. The access customer may be an Interexchange carrier (IXC) or an end user.
- Access Provider - An entity that provides access to the Access customer. Most often, this is the Incumbent Local Exchange Carrier (ILEC). An access provider can also be a CAP or CLEC.



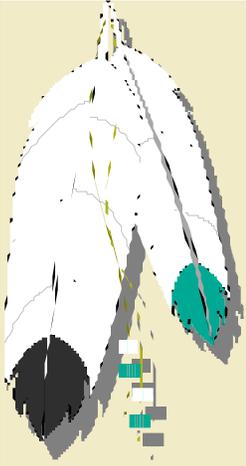
## Course Glossary - continued

- Access Rates - Charges for telecommunication services that are developed to recover pool revenue requirement. Developed for prospective periods.
- Average Schedule Company - A company that receives settlements by means of statistical formulas developed by NECA.



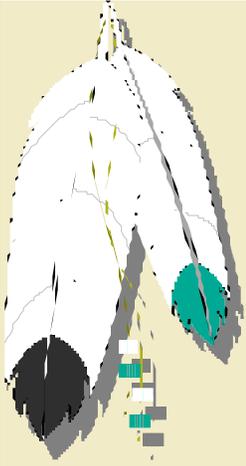
## Course Glossary - continued

- Incumbent LEC - The local exchange carrier that on February 8, 1996, provided telephone exchange service in an area and was deemed to be a member of NECA. (see FCC 51.5)
- IXC - Interexchange Carrier, provider of long distance/toll services. (i.e. MCI, ATT, Sprint, etc.)



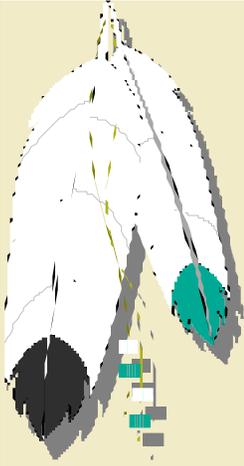
## Course Glossary - continued

- LEC - Local Exchange Carrier; local telephone company
- Rate of Return - The percentage of net profit that a telephone company is authorized to earn on its net investment. The rate of return for interstate purposes is authorized by the Federal Communications Commission (FCC) and is currently 11.25%



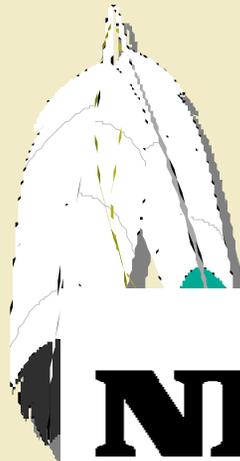
## **Course Glossary - continued**

- Revenue Requirement - The amount of money a regulated telephone company needs to cover the cost of doing business.



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CARRIER ASSOCIATION INC

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